Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	39007	((micro adj electronic) or MEMs)	US-PGPUB; USPAT	OR	ON	2005/06/02 11:52
L2	675	1 and (micro near3 (sphere or particle))	US-PGPUB; USPAT	OR	ON	2005/06/02 11:55
L3	615	2 and solution	US-PGPUB; USPAT	OR	ON	2005/06/02 11:55
L4	436	3 and @ad<"20031007"	US-PGPUB; USPAT	OR	ON	2005/06/02 11:56
L5	62	4 and (dielectric or insulator or insulating)	US-PGPUB; USPAT	OR	ON	2005/06/02 11:56
L6	403277	((micro adj electronic) or MEMs)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 11:52
L7	46	6 and (micro near3 (sphere or particle))	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 11:53
L8	13274	1 and ((spherical or particle))	US-PGPUB; USPAT	OR	ON	2005/06/02 11:55
L9	1157	1 and (((spherical or particle)) with solution)	US-PGPUB; USPAT	OR	ON	2005/06/02 11:55
L10	957	9 and @ad<"20031007"	US-PGPUB; USPAT	OR	ON	2005/06/02 11:56
L11	304	10 and (dielectric or insulator or insulating)	US-PGPUB; USPAT	OR	ON	2005/06/02 11:56
L12	289	11 not 4	US-PGPUB; USPAT	OR	ON	2005/06/02 11:56

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	47	zyvex	US-PGPUB; USPAT	OR	ON	2005/06/02 14:24
L2	41	zyvex	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 14:20
L3	5	releasing with (micro adj electronic)	US-PGPUB; USPAT	OR	ON	2005/06/02 15:34
L4	0	separating with (micro adj electronic)	US-PGPUB; USPAT	OR	ON	2005/06/02 14:27
L5	8	separating same (micro adj electronic)	US-PGPUB; USPAT	OR	ON	2005/06/02 14:28
L6	325	separating same (MEMs)	US-PGPUB; USPAT	OR	ON	2005/06/02 14:28
L7	169	6 and solution	US-PGPUB; USPAT	OR	ON	2005/06/02 14:28
L8	98	7 and (sphere or particle)	US-PGPUB; USPAT	OR	ON	2005/06/02 14:28
L9	69	8 and @ad<"20031007"	US-PGPUB; USPAT	OR	ON	2005/06/02 15:38
L10	72	(micro with sphere with solution) and @ad<"20031007"	US-PGPUB; USPAT	OR	ON	2005/06/02 14:52
L11	99	(micro with sphere with solution)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 14:40
L12	639	(micro with particle with solution) and @ad<"20031007"	US-PGPUB; USPAT	OR	ON	2005/06/02 14:59
L13	302	12 and substrate	US-PGPUB; USPAT	OR	ON	2005/06/02 14:53
L14	228	13 and (device or MEMs)	US-PGPUB; USPAT	OR	ON	2005/06/02 15:00
L15	81095	(dispersion with solution) and @ad<"20031007"	US-PGPUB; USPAT	OR	ON	2005/06/02 14:59
L16	28355	15 and (device or MEMs)	US-PGPUB; USPAT	OR	ON	2005/06/02 15:00
L17	5158	16 and micro	US-PGPUB; USPAT	OR	ON	2005/06/02 15:00
L18	1216	17 and (dielectric or insulating or insulator)	US-PGPUB; USPAT	OR	ON	2005/06/02 15:00
L19	130	rinsing and 18	US-PGPUB; USPAT	OR	ON	2005/06/02 15:01

L20	2	releasing with (micro adj electronic)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 15:35
L21	3	separating with (micro adj electronic)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 15:35
L22	2538	separating with (MEMS)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 15:36
L23	9	separating with (micromechanical)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 15:38
L24	1	23 and (solution or dispersion)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 15:38
L25	46	separating with (micromechanical)	US-PGPUB; USPAT	OR	ON	2005/06/02 15:38
L26	40	25 and @ad<"20031007"	US-PGPUB; USPAT	OR	ON	2005/06/02 15:38
L27	25	26 and (solution or dispersion)	US-PGPUB; USPAT	OR	ON	2005/06/02 15:38

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L34	0	(igor adj gory) or (bruce adj gnade) or (fadziso adj mantiziba)	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/02 16:34
L35	1	(igor adj gory) or (bruce adj gnade) or (fadziso adj mantiziba)	US-PGPUB; USPAT	OR	ON	2005/06/02 16:34

US-PAT-NO: 6486520

DOCUMENT-IDENTIFIER: US 6486520 B2

TITLE: Structure and method for a large-permittivity gate using a germanium layer

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Other Reference Publication - OREF (8):
"Effect of a Ge Barrier on the Microstructure of BaTiO.sub.3 Deposited on Silicon by Pulsed Laser Ablation", Mat. Res. Sco. Symp. Proc., vol. 285, 1993, Materials Research Society, pp. 379-384 (Elizabeth G. Jacobs, Young G. Rho, Russell F. Pinizzotto, Scott R. Summerfelt and **Bruce Gnade**).

DOCUMENT-IDENTIFIER: US 20030151032 A1

TITLE: Composite particle for dielectrics,
ultramicroparticulate composite resin particle,
composition for forming dielectrics and use thereof

---------- KWIC ---------

Summary of Invention Paragraph - BSTX (69):
[0064] The dielectric forming electrodeposition **solution** according to the present invention is characterized by having dispersed in a **dispersion** medium ultrafine particle-resin composite particles, and

Detail Description Paragraph - DETX (211):
[0336] The mixer that is used for such mixing is a boll mill, a propeller mixer, a high share mixer, a mixing deaerator, a triple roll, a V bender, a kneader and a **micro** fluidizer or the like.

Detail Description Paragraph - DETX (520):
[0640] Furthermore, after development processing by the alkali developer is conducted, **rinsing** is usually carried out. Also, the development treatment may be followed by the step of scrubbing away undesired residues remaining on the side face of the photosensitive transfer layer pattern and the exposed portion of the substrate, as necessary.

Detail Description Paragraph - DETX (625):
[0745] This polyamic acid and the hydrophobic compound are mixed together and reacted with each other in the form of **solution** in, for example, an organic solvent, followed by mixing this reaction **solution** with the aqueous **dispersion** medium, and removing at least part of the organic solvent in some cases, whereby a polyimide based resin emulsion composed of organic particles with the polyamic acid and the hydrophobic compound contained in the same particle can be obtained.

Detail Description Paragraph - DETX (699):
[0818] <<1>> First, a wiring board having an inlayer copper pattern formed on the surface of an **insulating** resin substrate is prepared. The resin substrate is preferably a resin substrate having inorganic fibers, and specifically, at least one type of substrate selected from a glass cloth epoxy substrate, a glass cloth polyimide substrate, a glass cloth

bismaleimide-triazine resin substrate and glass cloth fluorine resin substrate is preferably used for the resin substrate. Formation of the copper pattern on this resin substrate is carried out by etching a copper-clad laminate with copper foils bonded to the both sides of the resin substrate. Also, a perforating hole is bored in this substrate by a drill, and nonelectrolytic plating is applied to the wall surface of the perforating hole and the surfaces of the copper foils to form a through-hole. For the nonelectrolytic plating, copper plating is preferably applied. Furthermore, in the case of a substrate to which plating is not smoothly applied, such as a fluorine resin substrate, it is preferable that the plate is treated with a pre-treatment liquid containing organomatallic sodium (tradename: Tetraetch), or is subjected to surface modification treatment such as plasma treatment, and thereafter nonelectrolytic plating is applied to the substrate.

Detail Description Paragraph - DETX (1012):
[1069] A photosensitive dielectric-forming composition was prepared in just a same way as Example E2 except that 100 parts of the above described composite particles for dielectrics (a) were not used as composite particles for dielectrics, 20 parts of NMP **dispersions** of barium titanate (prepared by sol-gel process having an average particle size of 30 nm and permittivity of 2000) (solid content: 20%) were used as inorganic ultrafine particles instead of titania, 100 parts of polyimide NMP **solution** (solid content: 15%) of Example of Synthesis E3 were used as a resin capable of undergoing alkali development instead of the copolymer [1] of Example of Synthesis E1, and 50 parts of propylene glycol monomethyl ether and 50 parts of ethyl lactate were not added as a solvent. A photosensitive dielectric layer with thickness of 10 .mu.m was formed in a same way as Example E1 except that such a photosensitive dielectric-forming composition was used and the temperature inside the oven was changed from 200.degree. C. to 230.degree. C. in the curing step, followed by carrying out steps of exposure/development/curing to prepare a dielectric pattern and evaluating the dielectric pattern. The results are shown in Table E1.

Detail Description Paragraph - DETX (1164):
[1187] 50 parts (solid content) of polyimide **solution,** 30 parts (solid content) of acryl polymer **solution,** 20 parts of Epicoat 828 (trade name of a product manufactured by Yuka Shell Epoxy Co., Ltd.), and 67 parts (solid content) of isopropyl alcohol **dispersions** (solid content: 15%) of rutile titanium oxide ultrafine particles (average particle size: 20 nm) produced by the sol-gel method were mixed together and reacted at 70.degree. C. for 1 hour, and thereafter 3 parts of acetic acid were gradually added thereto and mixed to adjust pH. Then, this was gradually added in 1300 parts of distilled

water and vigorously stirred to obtain a cationic emulsion (solid content: 7.3%) of titanium oxide ultrafine particle-polyimide based resin composite particles. The average particle size of these titanium oxide ultrafine particle-compounded polyimide based resin particles was 0.2 .mu.m.

Detail Description Paragraph - DETX (1174):

[1195] 50 parts (solid content) of polyimide **solution,** 30 parts (solid content) of acryl polymer **solution,** 20 parts of Epicoat 828 (trade name of a product manufactured by Yuka Shell Epoxy Co., Ltd.), and 67 parts (solid content) of isopropyl alcohol **dispersions** (solid content: 15%) of barium titanate ultrafine particles (average particle size: 30 nm) produced by the sol-gel method were mixed together and reacted at 70.degree. C. for 1 hour, and thereafter 3 parts of acetic acid were gradually added thereto and mixed to adjust pH. Then, this was gradually added in 1300 parts of distilled water and vigorously stirred to obtain a cationic emulsion (solid content: 7.3%) of barium titanate ultrafine particle-compounded polyimide based resin particles. The average particle size of these barium titanate ultrafine particle-polyimide based resin composite particles was 0.2 .mu.m.

DOCUMENT-IDENTIFIER: US 20040062896 A1

TITLE: Fractionally-releasable bonding layer for use in photo-sensitive laminate films

---------- KWIC ---------

Detail Description Paragraph - DETX (87):
[0143] Specifically, as the viscosity of the bonding layer **solution** decreases, the atomization characteristics of the bonding layer **solution** being sprayed increases, resulting in smaller **particles** being sprayed onto the support sheet, thus decreasing the diameter of the individual **micro**-dots and the thickness of the resulting bonding layer. Increased atomization of the bonding layer solution being sprayed also results in a closer-packed micro-dot pattern.

Detail Description Paragraph - DETX (243):
[0270] It is to be understood that where in all of the above Examples the bonding layer solution was too thick to be sprayed using the Sada Jet Model J pressurized spray gun as configured above, the use of other spray **devices** having a more powerful spray capability would be apparent to those skilled in the art having knowledge of the present specification, and such use would extend the upper range on the amount of bonding agent which could be sprayed for each given carrier agent composition.

DOCUMENT-IDENTIFIER: US 20010053334 A1

TITLE: Microarray fabrication techniques and apparatus

---------- KWIC ---------

Application Filing Date - APD (1):
20010222

Detail Description Paragraph - DETX (47):
[0113] As illustrated in FIG. 6, probes 602 can be deposited on to the microarray substrate 604 by mechanically tapping the print-head 606 on the substrate 604. As shown in FIG. 6a, the constant flow of probe **solutions** 602 in the capillary channel 608 produces a **micro sphere** 610 of probe fluid 602 at the facet 612 of each capillary channel 608. When the print-head 606 is tapped on the substrate 604, the droplet 610 bonds to the substrate 604 due to surface tension as shown in FIG. 6b. This surface tension overcomes the binding force in the fluid 602. The droplet 610 thus breaks away from the fluid column at its weakest point, i.e. exiting point of the capillary channel 608, when the print-head withdraws as shown in FIG. 6c. A probe spot 614 is deposited on the substrate.

DOCUMENT-IDENTIFIER: US 20040014102 A1

TITLE: High density parallel printing of microarrays

---------- KWIC ---------

Application Filing Date - APD (1):
20030506

Detail Description Paragraph - DETX (37):
[0065] The arrayer system also includes a probe deposition subsystem that ensures that a constant and uniform volume of probe fluids are deposited onto the substrate and there are minimal or no missing or overlapped spots on the microarray. Probes can be deposited on the microarray substrate by mechanically tapping the print head on the substrate in which the constant flow of probe **solution** in the capillary produces a **micro sphere** of fluid at the facet of each capillary. When the print head is tapped on the substrate, the droplet bonds to the substrate due to surface tension. Furthermore, electrostatic printing methods can be employed to print the array. Also, probes may be immobilized on printing beads and a colloidal suspension formed, and the suspension can be deposited through the capillaries and onto the substrate to deposit the beads onto the substrate. Electromagnetic printing can also be employed in which probe molecules are attached to ferrofluids to form ferrofluid particles and deposited on the substrate. Yet another method is vacuum printing in which the output ends of the capillaries are placed under relative vacuum in order to draw probe-containing fluid through the capillaries.

DOCUMENT-IDENTIFIER: US 20020051979 A1

TITLE: Microarray fabrication techniques and apparatus

---------- KWIC ---------

Application Filing Date - APD (1):
20010222

Detail Description Paragraph - DETX (66):
[0135] As illustrated in FIG. 8, probes can be deposited on to the microarray substrate by mechanically tapping the print-head 805 on the substrate. As shown in FIG. 8a, the constant flow of probe **solutions** 801 in the capillary 802 produces a **micro sphere** 803 of fluid at the facet 804 of each capillary. When the print-head 805 is tapped on the substrate 806, the droplet bonds to the substrate due to surface tension as shown in FIG. 8b. This surface tension overcomes the binding force in the fluid. The droplet thus breaks away from the fluid column at its weakest point, i.e. exiting point of the capillary cavity, when the print-head withdraws as shown in FIG. 8c. A probe spot 807 is deposited on the substrate.